



IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

Eilon BARNEA et al

Serial No.: 10/705,459

Filed: November 12, 2003

For: METHOD OF IDENTIFYING PEPTIDES ...

Examiner:

Group Art Unit: 1641

Attorney

Docket: 26884

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RENEWED REQUEST FOR CORRECTED FILING RECEIPT

Sir:

Attached is a copy of the official filing receipt received from the United States Patent and Trademark Office in the above application as well as the original Request For Corrected Filing Receipt and the Response thereto. Issuance of a corrected filing receipt to correct an error of the USPTO is respectfully requested.

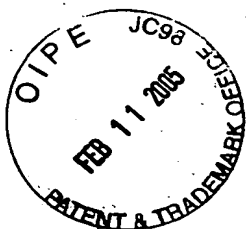
Please conform the "Domestic Priority data as claimed by applicant" to the information contained in the first page of the application, a copy of which is attached hereto.

Respectfully submitted,

Ed. Hecker

Sol Sheinbein
Registration No. 25,457

Date: February 6, 2005



UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/705,459	11/12/2003	1641	1446	26884	6	71	17

CONFIRMATION NO. 8318

G.E. EHRLICH (1995) LTD.
c/o ANTHONY CASTORINA
SUITE 207
2001 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VA 22202

FILING RECEIPT



OC000000012370706

Date Mailed: 04/15/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Eilon Barnea, Nesher, ISRAEL;
Ilan Beer, Haifa, ISRAEL;
Tamar Ziv, Haifa, ISRAEL;
Arie Admon, Kiryat Tivon, ISRAEL;
Lior Dassau, Haifa, ISRAEL;
Samuel Buchsbaum, Lyon, FRANCE;

Assignment For Published Patent Application

Technion Research & Development Foundation Ltd.;

Domestic Priority data as claimed by applicant

Foreign Applications

If Required, Foreign Filing License Granted: 03/29/2004

Projected Publication Date: 05/12/2005

Non-Publication Request: No

Early Publication Request: No

** SMALL ENTITY **

Title

Method of identifying peptides capable of binding to MHC molecules, peptides identified thereby and their uses

Preliminary Class

436

**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

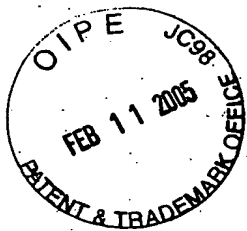
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This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



APPLICATION FOR PATENT

Inventors: BARNEA Eilon, BEER Ilan, ZIV Tamar, ADMON Arie,
5 DASSAU Lior, and BUCHSBAUM Samuel

Title: METHOD OF IDENTIFYING PEPTIDES CAPABLE OF BINDING
TO MHC MOLECULES, PEPTIDES IDENTIFIED THEREBY AND THEIR
USES

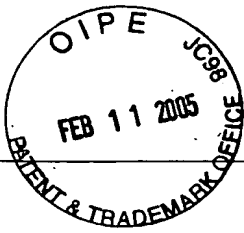
10 This application is a continuation in part of PCT Patent Application No.
PCT/IL02/00383, filed May 16, 2002, which claims priority from pending U.S.
Patent Application No. 09/865,548, filed May 29, 2001, and U.S. Provisional
Application No. 60/290,958, filed May 16, 2001.

FIELD AND BACKGROUND OF THE INVENTION

15 The present invention relates to a method of identifying peptides of a
desired origin and which are capable of binding to MHC molecules of a
particular haplotype; peptides identified by the method; pharmaceutical
20 compositions containing the peptides, databases describing the peptides and
the use of the peptides in vaccination.

The following abbreviations are used herein: MHC, Major
Histocompatibility Complex; $\beta 2m$, $\beta 2$ -microglobulin; ESI, electrospray
25 ionization; MS, mass spectrometry; m/z , mass charge ratio; CID, collision
induced disintegration; MS/MS, tandem mass spectrometry; MTDM, DNA
methyl transferase; FAS, fatty acid synthase; CTL, cytotoxic T lymphocytes;
mAbs, monoclonal antibodies.

30 The MHC serves as a shuttle to transport and display peptide antigens
on the surface of cells as an indication to the immune system of the health state
of the cells. Each individual has at most six different MHC class-I haplotypes,
out of the hundreds known. MHC bound peptides, i.e., peptides bound to, and
presented in context of, MHC molecules, originate from proteolysis of most of
the proteins expressed in the cells. Therefore, unique sets of MHC bound
35 peptides are displayed by each of the different MHC haplotypes according to

Docket No.
26884**Declaration and Power of Attorney For Patent Application****English Language Declaration**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD OF IDENTIFYING PEPTIDES CAPABLE OF BINDING TO MHC MOLECULES, PEPTIDES IDENTIFIED THEREBY AND THEIR USES

the specification of which



is attached hereto.



was filed on _____ as United States Application No. or PCT

International Application Number _____

and was amended on _____

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

(Number)

(Country)

(Day/Month/Year Filed)



(Number)

(Country)

(Day/Month/Year Filed)



(Number)

(Country)

(Day/Month/Year Filed)



I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

60/290,958

(Application Serial No.)

16-May-2001

(Filing Date)

(Application Serial No.)

(Filing Date)

(Application Serial No.)

(Filing Date)

I hereby claim the benefit under 35 U.S.C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112. I acknowledge the duty to disclose to the United States Patent and Trademark Office all the information known to me to be material to patentability as defined in Title 37, C.F.R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

PCT/IL02/00383

(Application Serial No.)

16-May-2002

(Filing Date)

(Status)

(patented, pending, abandoned)

09/865,548

(Application Serial No.)

29-May-2001

(Filing Date)

Pending

(Status)

(patented, pending, abandoned)

(Application Serial No.)

(Filing Date)

(Status)

(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*


Sol SHEINBEIN,	Registration Number 25,457
D'vorah GRAESER,	Registration Number 40,000
Martin MOYNIHAN,	Registration Number 40,338
Rochel ABOUDI,	Registration Number 44,490

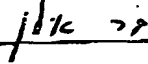
Send Correspondence to: **G.E. EHRLICH (1995) LTD.**
c/o **ANTHONY CASTORINA**
2001 JEFFERSON DAVIS HIGHWAY, SUITE 207
ARLINGTON, VIRGINIA 22202

Direct Telephone Calls to: *(name and telephone number)*

Anthony Castorina

Tel. No. (703) 415-1581
Fax No. (703) 415-4864

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Citizenship	:	Israeli
Post Office Address	:	10 HaSavion Street, 36822 Nesher, Israel

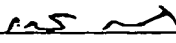
FULL NAME OF SECOND INVENTOR, IF ANY		BEER Ilan
Second inventor's signature <u></u>		Date <u>Oct 23, 2003</u>
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Citizenship	:	Israeli
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FULL NAME OF THIRD INVENTOR , IF ANY		ZIV Tamar
Third inventor's signature		Date
Residence	:	10 Aharonson Street, 34785 Haifa, Israel
Citizenship	:	Israeli
Post Office Address	:	10 Aharonson Street, 34785 Haifa, Israel

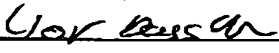
FULL NAME OF FOURTH INVENTOR , IF ANY		ADMON Arie
Fourth inventor's signature		Date
Residence	:	3 Irit Street, 36532 Kiryat Tivon, Israel
Citizenship	:	Israeli
Post Office Address	:	3 Irit Street, 36532 Kiryat Tivon, Israel

FULL NAME OF FIFTH INVENTOR , IF ANY		DASSAU Lior
Fifth inventor's signature		Date
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Citizenship	:	Israeli
Post Office Address	:	3 Hasidey Umot HaOlam Street, Ramat Alon, 75546 Haifa, Israel

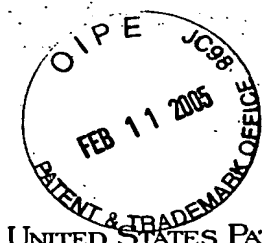
FULL NAME OF SIXTH INVENTOR , IF ANY		BUCHSBAUM Samuel
Sixth inventor's signature		Date <u>03-11-2003</u>
Residence	:	207 Avenue Barthelemy Buyer, Lyon 69005, France
Citizenship	:	French
Post Office Address	:	207 Avenue Barthelemy Buyer, Lyon 69005, France

FULL NAME OF THIRD INVENTOR , IF ANY		ZIV Tamar
Third inventor's signature		Date <u>23 Oct 2003</u>
Residence	:	10 Aharonson Street, 34785 Haifa, Israel
Citizenship	:	Israeli
Post Office Address	:	10 Aharonson Street, 34785 Haifa, Israel

FULL NAME OF FOURTH INVENTOR , IF ANY		ADMON Arie
Fourth inventor's signature		Date <u>27 Oct 2003</u>
Residence	:	3 Irit Street, 36532 Kiryat Tivon, Israel
Citizenship	:	Israeli
Post Office Address	:	3 Irit Street, 36532 Kiryat Tivon, Israel

FULL NAME OF FIFTH INVENTOR , IF ANY		DASSAU Lior
Fifth inventor's signature		Date <u>23.10.03</u>
Residence	:	3 Hasidey Umot HaOlam Street, Ramat Alon, 75546 Haifa, Israel
Citizenship	:	Israeli
Post Office Address	:	3 Hasidey Umot HaOlam Street, Ramat Alon, 75546 Haifa, Israel

FULL NAME OF SIXTH INVENTOR , IF ANY		BUCHSBAUM Samuel
Sixth inventor's signature		Date
Residence	:	207 Avenue Barthelemy Buyer, Lyon 69005, France
Citizenship	:	French
Post Office Address	:	207 Avenue Barthelemy Buyer, Lyon 69005, France



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/705,459	11/12/2003	1644	1446	26884	6	71	17

CONFIRMATION NO. 8318

CORRECTED FILING RECEIPT



OC000000014634188

G.E. EHRLICH (1995) LTD.
c/o ANTHONY CASTORINA
SUITE 207
2001 JEFFERSON DAVIS HIGHWAY
ARLINGTON, VA 22202

Date Mailed: 11/30/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

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Ilan Beer, Haifa, ISRAEL;
Tamar Ziv, Haifa, ISRAEL;
Arie Admon, Kiryat Tivon, ISRAEL;
Lior Dassau, Haifa, ISRAEL;
Samuel Buchsbaum, Lyon, FRANCE;

Assignment For Published Patent Application

Technion Research & Development Foundation Ltd.

Power of Attorney:

Sol Sheinbein-25457
D'Vorah Graeser-40000
Martin Moynihan-40338
Rochel Abboudi-44490

Domestic Priority data as claimed by applicant

This application is a CIP of PCT/IL02/00383 05/16/2002
which claims benefit of 60/290,958 05/16/2001

Foreign Applications

If Required, Foreign Filing License Granted: 03/29/2004

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/705,459**

Projected Publication Date: 03/10/2005

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Method of identifying peptides capable of binding to MHC molecules, peptides identified thereby and their uses

Preliminary Class

424

**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

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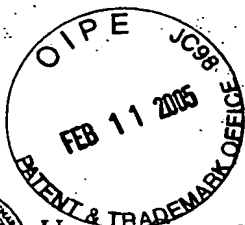
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NOT GRANTED

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RS



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NUMBER	FILING OR 371(c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/705,459	11/12/2003	Eilon Barnea	26884

CONFIRMATION NO. 8318

G.E. EHRLICH (1995) LTD.
 c/o ANTHONY CASTORINA
 SUITE 207
 2001 JEFFERSON DAVIS HIGHWAY
 ARLINGTON, VA 22202



OC000000014635717

Date Mailed: 11/30/2004

RESPONSE TO REQUEST FOR CORRECTED FILING RECEIPT

Domestic Continuity and Foreign Priority

In response to your request for a corrected Filing Receipt, the Office is unable to comply with the request because:

- ☐ The priority or continuity claim has not been entered because it was not filed during the required time period. Applicant may wish to consider filing a petition to accept an unintentionally delayed claim for priority. See 37 CFR 1.55 or 1.78.
- ☒ Continuity claimed under 35 U.S.C. § 120 cannot be added to the Filing Receipt without the applicant supplying the relationship (continuation, divisional, or continuation-in-part) in an Application Data Sheet or amendment to the first page of the specification. # 09865548
- ☐ A claim for priority cannot be made based on an application filed after the application making the claim.
- ☐ Domestic benefit and foreign priority claims will not be captured in a provisional application. A provisional application is not entitled to a right of priority or to the benefit of an earlier filing date of any other application. See 35 U.S.C. § 111(b)(7) and 37 CFR 1.53(c)(4).
- ☐ A domestic continuity claim cannot be made to a foreign application and the filing receipt will only list the foreign country, application number, and filing date.
- ☐ Foreign priority will appear on the Filing Receipt in the following order: **Country, Application number, Filing date.**
- ☐ This application is the result of a conversion from a provisional application. Priority based on such application cannot be made since it no longer exists as a provisional application.

- ☐ The application(s) to which priority is claimed were filed over a year prior to the filing date of this application. Therefore, the referenced application(s) cannot be claimed as domestic or foreign priority.
- ☐ To change the benefit claim of a U.S. prior-filed application, applicant must amend the first sentence of the specification (if the benefit claim is referenced in the specification), or provide a supplemental application data sheet (ADS) (if the benefit claim was submitted in an ADS), with the desired benefit claim. Note that once a benefit claim is deleted, applicant will not be able to claim such prior-filed application again, if the above-identified application was filed on or after November 29, 2000.
- ☐ To change a foreign priority claim, applicant must submit a supplemental oath or declaration (if the priority claim is referenced in the oath or declaration), or a supplemental application data sheet (ADS) (if the priority claim was submitted in an ADS), with the desired priority claim. If a supplemental ADS is submitted, any deletions should be shown with strikeouts. Note that once a priority claim is deleted, applicant will not be able to claim such foreign application again, if the above-identified application was filed on or after November 29, 2000.


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